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Rural Electric Cooperatives: Pole Attachment Policies and Issues

Broadband Deployment in Rural America Not Impeded by Pole Attachment Rates

PREPARED BY:
Brian O'Hara, Regulatory Director, NRECA

NRECA
America's Electric Cooperatives

Table of Contents

Introduction and Summary **1**

Electric Cooperatives and Communications Companies Have Different Priorities **4**

Closer Scrutiny Proves That Pole Attachment Rates Do Not Impact Decisions to Deploy Broadband in Rural America **6**

Customer Density is the Overriding Factor for Deploying Broadband in Rural Areas **8**

The Communications Industry Itself Recognizes That Factors Other Than Pole Attachments Explain Why They Do Not Serve Rural Areas **12**

Rental Rates Are Insignificant Compared to Communications Company Revenues and Overall Cost of Broadband Deployment **13**

Offers to Provide Free or Discounted Pole Attachments Do Not Encourage Communications Companies to Serve Rural Areas **14**

Virginia 14

Indiana 14

Arkansas 15

Tennessee 15

Conclusion **16**

Introduction and Summary

Electric cooperatives own and maintain poles, wires and rights-of-way to deliver safe and reliable electricity to their consumer-members. Some cooperatives allow communications companies to use these poles to carry infrastructure that provide cable television, telecommunications, broadband internet access, and other communications services. This relationship gives communications companies valuable access to a fully-constructed pole distribution corridor while the cost-based attachment rental fees help electric cooperatives to recover a small part of the significant cost of building and maintaining this 2.6 million mile distristribution network.

Electric cooperatives understand that communications service providers may need access to existing poles and rights-of-way to provide service and some have provided such access at cost-based rates to the considerable benefit of communications companies. By leveraging the cooperatives' existing distribution systems, communications companies avoid significant construction and maintenance costs, generally paying modest cost-based annual fees to access these systems. Despite this tremendous benefit, some for-profit communications companies contend that pole attachment rental rates charged by rural electric cooperatives prevent them from providing broadband services to rural communities.

These claims are unfounded.

Pole attachment rental rates are a fraction of the overall cost to build broadband systems in rural areas. Rather, the major impediments to rural broadband development are low population densities, high capital costs and other major operating expenses in rural areas. Because electric cooperatives are led by and belong to the communities they serve, they are keenly familiar with these challenges. The same economic factors that prevented for-profit electric utilities from extending service to rural areas in the 1930s exists today in relation to broadband.

Recent history shows that most communications companies will not provide broadband to all of rural America even when the pole attachment rental rates are waived entirely. When offered low or free pole attachment rental rates, for-profit providers have refused to serve the sparsely populated, rough-terrain areas served by electric cooperatives. Executives at some large cable and telecom providers conceded on multiple occasions that pole attachment rates are not the major barrier and that eliminating the charge altogether wouldn't necessarily encourage them to deploy to rural areas. Other factors, primarily low population density, are more significant factors. This fact has been supported by analyses by the Virginia State Corporation Commission, a Virginia Hearing Examiner, the Tennessee Broadband Report, the U.S. GAO, the Congressional Research Service and recognized by the FCC's own Intergovernmental Advisory Committee. All demonstrate that cost-based pole attachment rental rates have little, if any, influence on decisions by cable companies and other for-profit communications companies to invest in advanced broadband infrastructure in rural America.

If pole attachment rates were the barrier claimed, one would expect broadband to be significantly more readily available in rural areas served by large invester owned utilities (IOUs) since they are subject to FCC-regulated pole attachment rates that are generally lower than most electric cooperative rates. This is not generally the case. Given this well-established precedent, granting communications company demands for lower pole attachment rental rates is unlikely to result in expanded rural broadband access.

Artificially low pole attachment rental rates, set below cost, are more likely to increase communications company profits while having the unfortunate effect of adversely impacting electricity rates because the cooperative would be required to pay a greater share of the system's pole ownership and maintenance costs. Further, it could have the effect of increasing electric rates and impacting electric and communications reliability in the long term.

Rural communities desperately need broadband service in their communities. However, reducing pole attachment rental rates has consistently failed to address this problem.

Policymakers should focus on these steps to close the digital divide and provide rural communities access to broadband:

1. Improving the accuracy and veracity of broadband data to better identify and understand services gaps.
2. Prioritize broadband funding, especially government grants, to projects in areas with the lowest population densities since that is the greatest barrier to deployment.
3. Provide adequate funding to build broadband networks that will meet the growing speed and data needs.

About Electric Cooperatives

The National Rural Electric Cooperative Association (NRECA) is the national service organization for America's electric cooperatives. Member-owned, not-for-profit electric cooperatives constitute a vital sector of the electric utility industry – and face a unique set of challenges. NRECA represents the interests of more than 900 rural electric cooperatives that serve one in eight Americans. Electric cooperatives are driven by their purpose to power communities and empower their consumer-members to improve their quality of life. Affordable electricity is the lifeblood of the American economy. Because of their critical role in providing affordable, reliable, and universally accessible electric service, electric cooperatives are vital to the economic health of the communities they serve.

- America's electric cooperatives serve 56 percent of the nation's landmass, 88 percent of the nation's counties, including 93 percent of the 353 persistent poverty counties.
- Electric cooperativesaccount for approximately 13 percent of all electricity sold in the United States.
- More than 90 percent of electric cooperatives serve territories where the average household income is below the national average. One in six electric cooperative consumer-members live at or below the poverty line.
- Cooperatives serve an average of 8 consumer-members per mile of electric line, but this average masks the extreme low-density population of many cooperatives. If the handful of large cooperatives near cities were removed, the average would be lower.
- More than 100 electric cooperatives are providing broadband service and more than 200 cooperatives are exploring the option and conducting feasibility studies to do so.

NRECA member electric cooperatives and the communities they serve need broadband service. Although more than 100 electric cooperatives are providing broadband service to the communities they serve, rural communities typically are denied opportuity for growth and other benefits, such as distance learning, tele-health, precision agriculture, and job creation, that results from robust broadband service.

Electric Cooperatives and Communications Companies Have Different Priorities

Complaints about high pole attachment rental rates mostly originate from large investor-owned telecommunications and cable companies.[1] These for-profit businesses generally direct their broadband investment in areas where they receive the highest return on investment, typically in more populous areas.

These companies have a profit-driven business model that is vastly different than the not-for-profit model which drives electric cooperatives. Electric cooperatives are built by and belong to the consumer-members that they serve, and can respond to the unique needs of their community. They have an obligation to serve their entire rural service territory with safe and reliable electric service at cost, regardless of how remote it may be.

> Electric cooperatives are built by and belong to the consumer-members that they serve and can respond to the unique needs of their community.

The recognition that because low population density and rugged terrain can make rural communities more expensive to serve is why Congress granted electric cooperatives low-interest financing through the Rural Electrification Act to bring electricity to every community in America. Cooperatives continue to provide electric service to the most rural and remote parts of America without ongoing federal subsidies for operating expenses.

Similarly, the large incumbent local exchange carriers ("ILECs"), such as AT&T, CenturyLink, Frontier, Windstream and Verizon, have received billions of dollars ($4.4 billion for 2013-15 alone[2]) from the Universal Service Fund (USF) to offset the higher capital and operating expenses associated with providing telecommunications service to rural areas. USF monies are not low-interest loans, such as received by electric utilities, but are ongoing monthly subsidies. As a result, almost all rural areas have telephone service. Despite this ongoing subsidies, more than 25 million Americans, mainly in rural communities, still lack access to broadband.[3]

Cable providers typically provide no broadband service outside of rural town centers and their close-in communities because the lower population densities in rural areas do not fit their business plans. For-profit companies simply find it cost prohibitive to deploy in more rural areas. Cable companies, in fact, negotiate franchises that establish a threshold for the density they will serve, and a typical cable franchise limits such service requirement to

[1] *See, e.g.*, Comments of Comcast, *In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, WT Docket No. 17-79, and A*ccelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WT Docket No. WC Docket No. 17-84, at 24 (filed Jun. 15, 2017), available at https://ecfsapi.fcc.gov/file/1061566816529/Comcast%20Combined%20Infrastructure%20Comments%20--%20Dkts%20No%2017-79%20and%2017-84%20--%20FINAL.pdf ("Comcast Comments") (arguing that electric cooperative unregulated pole attachment rates are an "impediment to deployment in the many areas served by these poles, and increase the costs of providing broadband services.")

[2] *See* Universal Service Monitoring Report 2016, Federal Communications Commission, available at https://www.fcc.gov/sites/default/files/2017_universal_service_monitoring_report.pdf.

[3] FCC Internet Access Services: Status as of June 30, 2017, released November 2018, available at: https://docs.fcc.gov/public/attachments/DOC-355166A1.pdf.

densities of 25 residents per mile or more.[4] This compares with the average of eight members per mile served by electric cooperatives.

Not only do electric cooperatives serve more sparsely populated areas, they have an obligation to serve everyone in their service territory, no matter how remote. Unlike cable companies, electric cooperatives were formed to serve all areas regardless of profit margins.

[4] *See, e.g.*, City of Bellevue, Washington, Resolution No. 7040, *A Resolution Granting a Non-Exclusive Cable Television Franchise to Comcast of Bellevue, Inc.* (25 residents per mile of wire) (Available at: http://mrsc.org/getmedia/3A8E0E67-A01C-452C-A52B-3CF24AB616A0/B44r7040.aspx); State of New Jersey, Board of Public Utilities, *I/M/O Verizon New Jersey, Inc. Application for a System-wide Cable Television Franchise*, BPU Docket No. CE06110768 (35 homes per square mile) (available at: http://nj.gov/bpu/pdf/cablepdfs/vzsfwreport.pdf); Franchise Agreement by and between James City County, Virginia and Cox Communications Hampton Roads, LLC (25 occupied dwelling units per mile of wire) (available at: https://jamescitycountyva.gov/DocumentCenter/View/304/Cox-Cable-Agreement-PDF); Time Warner Cable's Senior Director of Construction explaining that TWC's franchises typically require service only "where a certain density threshold is satisfied," using the example of "25 homes per mile." North Carolina Utilities Commission, Docket No. EC-43, Sub 88, Direct Testimony of Nestor Martin of Time Warner Cable at 15-16 (filed May 30, 2017), available at http://starw1.ncuc.net/ncuc/ViewFile.aspx?Id=7d783494-3932-48ea-bd9f-17e8366db9cf ("First, under federal law, TWC is required to have either a local or state-issued franchise for the areas where it provides services. Typically, a local franchise agreement will contain a requirement for providing service where a certain density threshold is satisfied. For example, a franchise might require service anywhere in the franchise area where there are 25 homes per mile.").

Closer Scrutiny Proves That Pole Attachment Rates Do Not Impact Decisions to Deploy Broadband in Rural America

Evidence clearly shows that pole attachment rental rates have no material impact on broadband deployment in the rural communities served by electric cooperatives.

A hearing examiner in Virginia concluded that a $20.60 pole attachment rental rate paid by Comcast had an insignificant impact on the company's broadband expansion in rural Virginia.[5]

In a hearing on electric cooperative pole attachment rates before the Virginia State Corporation Commission (SCC), Comcast argued that high pole attachment rental rates were impeding its ability to serve rural America. Following the extensive evidentiary hearing, the hearing examiner rejected Comcast's arguments, concluding that it was not pole attachment rates, but rather low customer density, that was discouraging Comcast. In approving an annual attachment rate of $20.60 for the Northern Virginia Electric Cooperative (NOVEC), the hearing examiner concluded that pole attachment rates have little impact on broadband expansion:

Although Comcast and [Virginia Telecommunications Industry Association] VTIA have argued that the attachment rates charged by electric cooperatives are a significant factor preventing expanded broadband deployment in rural areas, the greater weight of evidence in this proceeding simply does not support this contention. I find that the record in this proceeding indicates that reasonable pole attachment rates have little impact on broadband expansion.

With the exception of the Page County example noted above, if pole attachment rates were a major factor, one would expect broadband to be readily available in rural areas served by IOUs, whose FCC-regulated attachment rates are similar to the rates advocated by Comcast. As Mr. Farmer, President and CEO of Rappahanock Electric Cooperative (REC), pointed out from his personal experience, broadband is not readily available in rural IOU service areas despite FCC-regulated pole attachment rates that are significantly lower than most electric cooperative rates.

Although Comcast and [Virginia Telecommunications Industry Association] VTIA have argued that the attachment rates charged by electric cooperatives are a significant factor preventing expanded broadband deployment in rural areas, the greater weight of evidence in this proceeding simply does not support this contention.

The fact remains that the cost of providing broadband service in rural areas is often prohibitive for for-profit companies such as Comcast because the customer density simply does not support the cost of providing the service. Customer density appears to be the overriding factor in broadband expansion; therefore, the rate recommended herein should

[5] Virginia State Corporation Commission, *Application of Northern Virginia Electric Cooperative*, Case No. PUE-2013-00055, "Report of Howard P. Anderson, Jr., Hearing Examiner" (June 12, 2014) ("Virginia Hearing Examiner Report"), at pp. 43-44, available at http://www.scc.virginia.gov/docketsearch/DOCS/2xzq01!.PDF. The Hearing Examiner's report was affirmed by the full Virginia State Corporation Commission.

not have any significant impact one way or the other on the development and utilization of broadband technology in NOVEC's service territory.[6]

Cost-based annual pole rental rates charged by cooperatives represent a significant savings to companies that would have to bear the burden of building and maintaining their own pole infrastructure in the absence of electric cooperative poles. FirstEnergy calculated that to duplicate pole infrastructure would cost approximately $60,285 per mile in rural areas.[7] This cost does not include ongoing maintainance, vegetation management and other cost associated with managing such infrastruture assets. For example, one electric cooperative reported annual vegetation management cost alone ranging from $2.5 to almost $3 million dollars in 2014.[8]

In comparison, the cost to attach to a cooperative's pole at the annual rate of $20.60 deemed fair by the SCC would cost an attacher about $564 per mile per year.[9] This makes clear that telecommunications and cable companies receive significant benefit and cost savings under current cost-based cooperative annual rental rates.

[6] *Id*. (footnotes omitted).

[7] In the Matter of Commonwealth Telephone Company LLC d/b/a Frontier Communications, Commonwealth Telephone Company LLC, Frontier Communications of Breezewood, LLC, Citizens Telecommunications Company of West Virginia d/b/a Frontier Communications Company of West Virginia d/b/a Frontier Communications Company of West Virginia, and Frontier West Virginia Inc., Complainants, v. Metropolitan Edison Company, Pennsylvania Electric Company, West Penn Power Company dba Allegheny Power, Monongahela Power Company, and the Potomac Edison Company, Respondents, EB-14-MD-008, Docket No. 14-218, filed July 11, 2014, p. 25. This cost estimate is from 2014 so the cost to duplicate pole infrastructure per mile in rural areas has likely increased since then.

[8] Vegetation Management Plan for Vermont Electric Cooperative, Inc. Transmission and Distribution Systems, updated March 2014, available at https://www.vermontelectric.coop/images/2014_VECVgtMgmntPlan_Rev03-20-14.pdf. This would breakdown to an annual per consumer/customer cost range of between $74 to $87. Attachers may pay additional fees to pole owners to help cover these costs.

[9] *See Id*. at 24. This assumes approximately 30 poles per mile with an average span between poles of 175 feet.

Customer Density is the Overriding Factor That Impedes Broadband Deployment in Rural Areas

No study has conclusively determined that pole attachment rental rates have an impact on rural broadband deployment decisions.[10] Rather, multiple government reports have concluded that population density is the main barrier to broadband deployment in rural areas and that pole attachment rates have little to no impact on rural broadband deployment.

For example, the hearing examiner's decision in the evidentiary hearing before the Virginia State Corporation Commission (SCC) concluded that "reasonable pole attachment rates have little impact on broadband expansion," and that "customer density appears to be the overriding factor in broadband expansion."[11] This decision followed the SCC's 2011 "*Report on Electric Cooperative Pole Attachment Issues*," which found that lower pole attachment rates do not directly result in additional rural broadband deployment, but instead will likely raise electric rates:

No persuasive evidence was submitted in this proceeding that proved lower pole attachment rates would directly result in additional broadband deployment… Further, as electric cooperatives and investor owned utilities are regulated under a "cost of service" model, any reduction to cooperatives' and electric investor-owned utilities' pole attachment rates will likely require an increase in consumers' electric rates if the utilities' revenue requirements remain the same.[12]

No persuasive evidence was submitted in this proceeding that proved lower pole attachment rates would directly result in additional broadband deployment … any reduction to cooperatives' and electric investor-owned utilities' pole attachment rates will likely require an increase in consumers' electric rates

In Tennessee, an extensive 2017 report on challenges to rural broadband deployment by the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) noted the significant disparity in broadband coverage between urban (98%) and rural (66%) communities, and concluded that this urban-rural coverage divide "is the result of the economics of building and maintaining broadband networks, which favor densely populated communities."[13] The report noted communications provider comments that "reducing pole attachment rates alone would not guarantee that providers could serve every area

[10] The National Broadband Plan stated that easing permit and zoning rules, as well as reducing fees for access to easements, rights-of-way and pole attachments "*could* have the added effect of generating an increase in rural broadband" but did not make a conclusive finding, p. 110, available at https://www.fcc.gov/general/national-broadband-plan.

[11] Virginia Hearing Examiner Report at pp. 43-44.

[12] "Report on Electric Cooperative Pole Attachment Issues." Commonwealth of Virginia State Corporation Commission, November 1, 2011. Link to text: http://www.scc.virginia.gov/docketsearch/DOCS/2h%40m01!.PDF

[13] Report of the Tennessee Advisory Commission on Intergovernmental Relations, Broadband Internet Deployment, Availability and Adoption in Tennessee, January 2017 ("Tennessee Broadband Report"), at 74, available at https://www.tn.gov/content/dam/tn/tacir/documents/2017_Broadband.pdf. The report also notes that: "While only 51% of the 10% of census blocks with the lowest housing densities have access to service of at least 10/1, over 90% of the highest density census blocks do." *Id*. at 76.

in the state because too many other factors affect the cost of expanding broadband networks."[14]

In a 2019 report, the Congressional Research Service (CRS) said the overriding factor for broadband expansion is customer density, adding that rural terrain and remoteness contribute to the problem:

The comparatively lower population density of rural areas is likely the major reason why broadband is less deployed than in more highly populated suburban and urban areas. Particularly for wireline broadband technologies—such as cable modem and fiber—the greater the geographical distances among customers, the larger the cost to serve those customers. Thus, there is often less incentive for companies to invest in broadband in rural areas than, for example, in an urban area where there is more demand (more customers with perhaps higher incomes) and less cost to wire the market area.

The terrain of rural areas can also be a hindrance, in that it is more expensive, for example, to deploy broadband technologies in a mountainous or heavily forested area. An additional added cost factor for remote areas can be the expense of "backhaul" (e.g., the "middle mile"), which refers to the installation of a dedicated line which transmits a signal to and from an internet backbone, which is typically located in or near an urban area. [15]

The comparatively lower population density of rural areas is likely the major reason why broadband is less deployed than in more highly populated suburban and urban areas

The U.S. Government Accountability Office released a 2014 report on broadband deployment to unserved and underserved areas that found conditions impeding broadband access in these areas "include low populations who might also be widely dispersed and in remote areas that might have challenging terrain, such as mountains, that increase construction costs."[16] Pole attachment fees were not mentioned as a barrier to broadband deployment.

Finally, even the FCC's Intergovernmental Advisory Committee in 2018 recognized that investment in new communications networks (in this case 5G wireless services) is focused primarily in high-density urban and suburban areas: "It cannot be disputed that when 5G is deployed, it will be focused in urban and more densely populated suburban areas.… The Commission knows from past history that the

[14] *Id*. at 100-101. The Tennessee Broadband Report recommended that electric cooperatives be authorized to provide retail broadband service in their service territories. *Id.* at 14. This report proved persuasive. In the spring of 2017, the Tennessee Broadband Accessibility Act became law, lifting a major market barrier and allowing electric cooperatives to construct and operate broadband networks. Tennessee Broadband Accessibility Act, Tenn. Code Ann. § 4-3-708 et seq. (2017), available at http://publications.tnsosfiles.com/acts/110/pub/pc0228.pdf.

[15] CONG. RESEARCH SERV., RL 30719, BROADBAND INTERNET ACCESS AND THE DIGITAL DIVIDE: FEDERAL ASSISTANCE PROGRAMS, AT P. 7 (2019).

[16] Telecommunications: Projects and Policies Related to Deploying Broadband in Unserved and Underserved Areas (GAO-14-409), at p.7. Link: http://www.gao.gov/assets/670/662711.pdf. *See also id*. at p. 20 ("remote areas generally have high costs to deploy broadband due to the expense of deploying technologies over long distances and potentially difficult terrain to often relatively few potential subscribers").

industry is going to deploy facilities where it will receive the greatest return on investment."[17]

These conclusions by multiple government agencies that customer density is the overriding factor in broadband expansion is confirmed by an analysis recently performed by NRECA. NRECA compared the extent of broadband deployment in the less populated rural areas served by electric cooperatives to the extent of broadband deployment in more populated rural areas served by investor owned utilities (IOUs).

The results of this study are contained in the following Table:

Table 1: Comparison of Broadband Service in Rural Areas

	Co-op			IOU		
State	Number of Households	Percent Underserved	Density per Sq Mile	Number of Households	Percent Underserved	Density per Sq Mile
Alabama	37,860	78%	13.5	33,853	66%	25.6
Vermont	10,316	58%	18.0	13,482	30%	41.6
Virginia	71,620	45%	36.7	77,932	31%	46.9
TOTAL	**119,796**	**57%**	**22.1**	**125,267**	**40%**	**37.4**

As reflected in Table 1, there is a strong correlation between low household density per square mile and lower broadband penetration in rural parts of the country.[18] As shown, the population density in the rural areas served by IOUs (37.4/square mile) is nearly double the population density in the rural areas served by electric cooperatives (22.1/square mile). This difference in population density correlates with lower broadband penetration (57% unserved in cooperative territory vs. 40% unserved in IOU territory).

[17] *Intergovernmental Advisory Committee to the FCC*, Advisory Recommendation No. 2018-1, In the Matter of Accelerating Wireless Broadband Deployment by removing Barriers to Infrastructure Investment, WT Docket No. 17-79. pp. 4-5. Available at: https://ecfsapi.fcc.gov/file/103210132711616/IAC%20Filing%20with%20FCC.pdf.

[18] NRECA examined the rural counties located in three different states. Within these rural counties, NRECA identified which areas are served by electric cooperatives and which are served by IOUs. For this analysis, NRECA defined rural counties as those assigned USDA Rural-Urban Continuum Code 9, indicating they are completely rural or have an urban population less than 2,500 and are not adjacent to a metro area, or those assigned USDA Rural-Urban Continuum Code 8, indicating they are completely rural or have an urban population less than 2,500 and are adjacent to a metro area. Using digital mapping software, these rural areas were layered over broadband coverage data from the FCC to determine if cooperative rural service areas are more underserved than IOU rural service areas. These FCC data are the Fixed Broadband Deployment Data from FCC Form 477, available at: https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477. Alabama, Vermont and Virginia were selected because they meet the following criteria: (1) there was a clear delineation in the data between cooperative service areas and IOU service areas; (2) these states had at least four rural counties to provide a large enough sample; and (3) in those counties, the ratio of households in rural counties served by electric cooperatives to households in rural counties served by IOUs (or vice versa) was more than 4:3, to ensure a balanced sample of cooperative and IOU households. Table 1 shows the percentage of cooperative and IOU households in rural counties that are unserved or underserved for broadband access. Underserved households are defined by the FCC as those without access to broadband service at download speeds of at least 25 Mbps and upload speeds of at least 3 Mbps.

If pole attachment rates were a major factor in rural deployment, one would expect broadband to be much more readily available in rural areas served by IOUs. As the chart points out, broadband is not significantly more readily available in rural IOU service areas despite FCC-regulated pole attachment rates that are lower than most electric cooperative rates.

… broadband is not significantly more readily available in rural IOU service areas despite FCC-regulated pole attachment rates that are lower than most electric cooperative rates.

The Communications Industry Recognizes That Factors Other Than Pole Attachments Explain Why They Do Not Serve Rural Areas

The communications industry acknowledges that factors other than pole attachments are the reason why communications companies do not provide broadband to rural America. In comments before the FCC, Dallas Clement, Cox Communications' executive vice president and chief strategy and product officer, explained that rural areas do not have broadband service primarily because of the large capital expenditures. Other factors include insufficient revenue and higher operating expenses.[19] In describing higher operating expense costs, Clement did not mention pole attachment costs.[20]

In 2014, during pole attachment negotiations with a Tennessee cooperative, a vice-president of one of the world's largest telecommunications companies requested a lower pole attachment rate at the cooperative's board meeting. A board member asked about

> … reducing pole attachment rates alone would not guarantee that providers could serve every area in the state because too many other factors affect the cost of expanding broadband networks.

> A telecommunications executive said the company "would not extend its services further into the cooperative's rural areas even if the pole attachment rate were zero."

the company's plans to expand their services to more of the cooperative's membership, inquiring what pole attachment rate would support an extension of the company's rural service territory. The vice president answered that the company "would not extend its services further into the cooperative's rural areas even if the pole attachment rate were zero."[21]

These statements are consistent to that cited in the Tennessee Advisory Commission on Intergovernmental Relations report, which noted communications provider comments that "reducing pole attachment rates alone would not guarantee that providers could serve every area in the state because too many other factors affect the cost of expanding broadband networks."[22] Communications executives also acknowledged that reimbursement for pole maintenance is a legitimate concern of pole owners.[23]

[19] See transcript of the FCC's National Broadband Plan Workshop, Deployment – Wired, August 12, 2009, at 80 ("[I]n order of priority, I'd say it's the CAPEX to get there. Then it's what's the average revenue out of that home? And that's sort of the second issue. And then the third issue is the cost to support."). http://www.broadband.gov/docs/ws_02_deploy_wired_transcript.pdf.

[20] *See id.* at 76-82.

[21] TECA Memorandum to the Tennessee Advisory Commission on Intergovernmental Relations ("TACIR") submitted by the Tennessee Electric Cooperative Association, October 21, 2015, regarding TACIR's study on the Development and Deployment of Broadband in Tennessee, at 26, available at https://www.tn.gov/content/dam/tn/tacir/commission-meetings/2015-october/2015OctoberTab3BB_TECA.pdf (emphasis in original).

[22] Tennessee Broadband Report at 100-101.

[23] See *Id.* at 101.

Rental Rates Are Insignificant Compared to Communications Company Revenues and Overall Cost of Broadband Deployment

A claim by Comcast in the FCC's pole attachment rulemaking proceeding is typical of those offered by telecommunications companies.[24] Comcast claimed that an average rental rate of $18.33 per year for cooperative infrastructure was an "impediment to deployment."[25]

Comcast's suggestion that it cannot provide broadband to rural America because of high pole attachment rental rates is unfounded. As is common with these calls for lower attachment rates, Comcast offered no evidence to support its claims. Decisionmakers should not take such suggestions as fact without supporting information.

The difference between this electric cooperative rate and the FCC regulated pole attachment rate would bring the net impact to one-half of one percent (0.5%) of Comcast's per customer revenue.

To place the relative impact of attachment rates in perspective, the $18.83 annual attachment rate Comcast complained about is approximately one percent of its annual per customer revenues of $1,779.12.[26]

The difference between this electric cooperative rate and the FCC regulated pole attachment rate would bring the net impact to one-half of one percent (0.5%) of Comcast's per customer revenue. Comparing annual pole attachment rental rates to the overall cost of deploying fiber further indicates attachment costs are a de minimis cost of deploying a fiber network, which can cost as high as $50,000 per mile in rural areas.[27]

[24] *Comcast Comments* at 24.
[25] *See Id.* at 26-27.
[26] *See* Comcast Corporation's SEC Form 10-K filing for 2016 at: https://www.sec.gov/Archives/edgar/data/902739/000119312517030512/d290430d10k.htm (last visited Jan. 15, 2019). Page 48 of that filing indicates Comcast's "Average monthly total revenue per customer relationship" in 2016 was $148.26. Multiplying that figure by 12 months results in annual revenues per customer of $1,779,12 ($148.26 X 12 = $1,779.12).
[27] Vantage Point Solutions, Distance Sensitivity of Rural Telephone Company Transport Networks, July 2005, p.4, at: https://ecfsapi.fcc.gov/file/6518012568.pdf. and, Foundation for Rural Service, *Providing World-Class Broadband: The Future of Wireless and Wireline Broadband Technologies*, March 2010, p.12, at: https://ecfsapi.fcc.gov/file/7020522078.pdf. In the experience of BARC Connects (VA) their aerial fiber deployment costs have consistently averaged $35,000 per mile.

Offers to Provide Free or Discounted Pole Attachments Do Not Encourage Communications Companies to Serve Rural Areas

In four instances, electric cooperatives offered to provide discounted or free pole attachments to communications companies in exchange for expanded rural service. In each case, those offers were declined.

Virginia

Central Virginia Electric Cooperative (CVEC) serves 35,800 members throughout parts of 14 central Virginia counties. In 2016, CVEC issued a "Request for Information for Partnership for Deployment of a Broadband Network to Provide Universal Service for the Membership of Central Virginia Electric Cooperative," in which the cooperative offered free pole attachments in exchange for a commitment to serve all of CVEC's members.

> … the cooperative offered free pole attachments in exchange for a commitment to serve all of CVEC's members…the national providers declined to respond at all…

The request was sent to three national broadband providers and several regional and local providers. The national providers declined to respond at all, and the only entity that did respond was a small local provider that indicated it could not meet CVEC's five-year buildout plan and requested that the project be built at speeds lower than the 25 Mbps download.[28]

Indiana

In 2009, Jackson Rural Electric Membership Cooperative's board of directors approved a policy to encourage fiber-optic broadband deployment in its service territory. For the first 3-years, the cooperative would waive pole attachment fees entirely and then based on member take-rates, would provide a 100% discount for two additional years if certain criteria were met, namely that the fiber-optic broadband attacher would serve all cooperative members in its proposed area. Continued pole attachment discounts would be reviewed every five years.[29]

Only one communications provider expressed interest in the free pole attachment offer, but they were not able to meet the "all members"

> … the electric cooperatives would accept a very low rate for pole attachments in exchange for broadband deployment (25/3 Mbps) in electric cooperative service territories ... The telecommunications companies refused this offer and provided no counter-offer."

[28] NRECA Reply Comments, *In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment (WT Docket No. 17-79) and Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment (WC Docket No. 17-84)*, July 17, 2017 at p.35, Exhibit C. Available at https://ecfsapi.fcc.gov/file/1071764918758/NRECA%20Reply%20Comments%20on%20Wireline%20Broadband%20NPRM.pdf.

[29] Jackson REMC, *Modified Pole Rental Agreement Terms for Projects that Expand Fiber Optic Broadband Internet Service Availability to Jackson County REMC Members*, Exhibit B. Updated version approved November 8, 2016.

requirement. In the end, no communications provider chose to take advantage of the offer of free pole attachments.

Arkansas

In 2015, pole attachment legislation written by the Arkansas Cable and Telecommunications Association (House Bill 1798) was introduced in the Arkansas General Assembly. The Arkansas electric cooperatives objected to this one-sided legislation and the bill sponsor suggested that the Arkansas statewide organization offer amendments to make it more palatable to the cooperatives. The cooperatives' proposed amendment was simple – the electric cooperatives would accept a very low rate for pole attachments in exchange for broadband deployment (at speeds of 25 Mbps download and 3 Mbps upload) in electric cooperative service territories by 2020. The telecommunications companies refused this offer and provided no counter-offer. The bill therefore was withdrawn.[30]

Tennessee

In 2008, Tennessee enacted the "Competitive Cable and Video Services Act," which established a 50 percent pole attachment discount for rates in effect at that time over a 10-year period to any attaching party seeking to expand its services into historically unserved areas. Following up on this offer, the Tennessee Electric Cooperative Association in 2015 noted that no party ever sought to take advantage of the discount.[31]

[30] *See Id.* at p. 32, Exhibit B.

[31] Memorandum to the Tennessee Advisory Commission on Intergovernmental Relations ("TACIR") submitted by the Tennessee Electric Cooperative Association, October 21, 2015, regarding TACIR's study on the Development and Deployment of Broadband in Tennessee, at 25, available at https://www.tn.gov/content/dam/tn/tacir/commission-meetings/2015-october/2015OctoberTab3BB_TECA.pdf.

Conclusion

The argument by for-profit telecom and cable companies that pole attachment rates are a barrier to rural broadband deployment is a red herring.

Offers to reduce or eliminate pole attachment rental fees—along with analyses by state and federal agencies and regulators—clearly demonstrate that pole attachment rental rates have no impact on decisions by cable companies and other large communications companies to invest in advanced broadband infrastructure in rural America. Pole attachment rental rates are de minimus in relation to the overall cost of deploying broadband. Cost-based annual cooperative pole rental rates represent significant savings to attachers compared to deploying and maintianing their own pole infrastructure.

Rural electric cooperatives and the communities in which they serve want and need broadband service. It's essential for access to education, healthcare and economic growth and diversification. But extracting pole attachment rental revenue from cooperatives, and their consumer-members, does not increase broadband availability. Further, it could have the effect of increasing electric rates and impacting electric and communications reliability in the long term.

If policymakers truly wish to bring broadband to every rural community, they should not focus on pole attachment rental rates. Instead they should focus on:

1. Improving the accuracy and veracity of broadband data to better identify and understand services gaps
2. Prioritize broadband funding, especially government grants, to projects in areas with the lowest population densities since that is the greatest barrier to deployment
3. Provide adequate funding to build broadband networks that will meet the growing speed and data needs, not today's minimum definition of broadband